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"Fascinating Rhythm's" Fascinating Rhythm: Celebrating the Gershwins' Self-referential Song

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I like New York in June
How about you?
I like a Gershwin tune,
How about you?[1]

1. Introduction

Introduced in the 1924 musical comedy *Lady Be Good*, "Fascinating Rhythm" is a classic example of how George Gershwin composed a "jagged musical space," into which precise "verbal shards" had to be fit, as in the art of creating mosaics, a particularly apt metaphor Ira Gershwin used to describe the craft of the lyricist (Furia, *Ira* 5). The aim of this study is not only to understand why so many people "like a Gershwin tune," but more broadly to relate the study of songs to other forms of verbal art. Songs, like chants, children's rhymes and much light poetry may by viewed as *isochronic metrical poetry*, based on the organization of beats within a mental metrical grid (Arleo, *Tribute* 81). With its sixteen-bar verse and thirty-two-bar refrain, "Fascinating Rhythm" exemplifies a binary structure that became widespread in twentieth-century American popular music, especially during the Gershwin years. While some, including Ira Gershwin himself, have objected to calling songs a form of poetry, there is no principled way of distinguishing between songs and poems (Arleo, *ibid.*). As Philip Furia (*Poets*, 6) has pointed out, many well-known English language poems, such as "Drink To Me Only with Thine Eyes," were once song lyrics set to previously composed music. Furthermore, songs and lyrics obviously have much in common, including poetic organization (e.g., division into stanzas and lines), sound patterning, metaphors and so on. Finally, songs may be studied as a genre of oral poetry, as has been suggested by authors such as Ruth Finnegan, Paul Zumthor and John Miles Foley.[2]

The research presented here has stemmed out of the investigation of two independently formulated hypotheses that children's rhymes display universal metrical structures (Arleo, *Children's Rhymes*). In a paper first published in 1956 ethnomusicologist Constantin Brailoiu provided data from children's rhymes in a wide range of languages

showing the prevalence of the line comprising the equivalent of eight eighth notes.[3] Ten years later, in his well-known study on the metrics of children's rhymes linguist Robbins Burling suggested that the sixteen-beat stanza, comprising four four-beat lines, may be universal. Such symmetrical structures, based on binary principles, are also widespread in many forms of music, dance and folk poetry. To return to twentieth-century American popular music, we note that the thirty-two-bar standard has become a major vehicle for jazz improvisation. Musicians generally find it harder to improvise on asymmetric structures, suggesting that there are basic cognitive principles involved that transcend particular genres of artistic expression. As will be seen, "Fascinating Rhythm" fascinates through the foregrounding of an asymmetric rhythmic figure against a highly regular and conventional ground. In this paper I first look at the circumstances in which the Gershwins created this early masterpiece and then provide a detailed analysis of the song.

2. The search for "The Real American Folk Song" and the creation of "Fascinating Rhythm"

The Gershwins' first collaboration, "The Real American Folk Song (Is a Rag)," was performed in the Broadway show *Ladies First* in 1918 (Kimball 5):

> The real American folk song is a rag—
> A mental jag—
> A rhythmic tonic for the chronic blues.
> The critics called it a joke song, but now
> They've changed their tune
> And they like it somehow.
> For it's inoculated
> With a syncopated
> Sort of meter,
> Sweeter
> Than a classic strain…

This manifesto for homegrown American music captures some of the excitement of New York City at the beginning of the century, especially the sounds pouring out of Tin Pan Alley, home of the songmakers since the 1890s. Whitcomb depicts the period:

> …just as the Alley began to wax fat, American music started limbering up and jerked to the surface of urban life at the end of the 1890s. The melting pot had produced a great stew of music: sounds from Ireland, Scotland, Russia, Serbo-Croatia and on and on. Jigs, reels, marches, polkas, waltzes - and mixed up in this swirl was the ex-African with an intriguing song and dance style soon to be called ragtime…. The lyrics were pepped up with slangy street phrases, lots of "ain'ts" and "honey babes"…. (11)

Although Ira Gershwin would later claim that "The Real American Folksong" was "too much like an essay" (Rosenberg 35), it was the first in a series of self-referential rhythm songs written by the Gershwins, in which the subject of the lyrics is illustrated by the syncopated jagged rhythmic patterns of the song itself. It thus anticipates "Fascinating Rhythm," published in 1924, "I Got Rhythm," from the 1930 musical *Girl Crazy* as well as songs written by others, such as Duke Ellington's "It Don't Mean a Thing if It Ain't Got That Swing."

"Fascinating Rhythm," whose earlier title was "Syncopated City," was introduced by Fred and Adele Astaire in the 1924 musical comedy "Lady Be Good." The Astaire siblings play the roles of Dick and Susie Trevor, a brother and sister who have come upon hard times and are thrown out on the sidewalk in the first scene of the first act. Their subsequent money-making schemes interfere with their respective love lives, but "as in most musical comedies of the time, the Trevors wind up with both love and money when the curtain falls" (Rosenberg 84). By singing and dancing "Fascinating Rhythm" the Trevors/Astaires show that while they are obsessed by rhythm, they also master and transcend it. Hermione Baddeley, an English actress who was at the 1926 London opening of the show, found their performance magical and barely human: the "gorgeous rhythm" stunned the audience, which "went ecstatic, giving them a standing ovation for ages and ages" (qtd. by Rosenberg 96).

George Gershwin composed the first eight bars of "Fascinating Rhythm" while in London in 1924 for an earlier show, *Primrose*, and played it for Ira upon his return to New York. According to George Gershwin, Ira

> mulled it over for a while and then came through with a perfect title for the theme. However, it wasn't as easy as that, for the title covered part of the first bar only, and there was many a hot argument between us as to where the accent should fall in the rest of the words. You see, the theme repeated itself, but each time on a new accent… (Kimball 48).

Ira Gershwin would later recall that it "was a tricky rhythm for those days and it took me several days to decide on the rhyme scheme" (ibid.). After writing eight lines, Ira showed the lyric to George who commented that the fourth and eighth lines required a double (that is, two-syllable) rhyme, whereas Ira had rhymed them with single syllables. Ira protested, claiming that "the last two notes in these lines formed a spondee" and therefore "the easiest way out was arbitrarily to put the accent on the last note." (ibid.). Ira finally capitulated and came up with the double rhyme *a-quiver/ a flivver*, after George had proved that "whereas in singing, the notes might be considered as even, in conducting the music, the downbeat came on the penultimate note" (ibid.). A *flivver*, by the way, refers to a car, airplane or other

vehicle, especially a small or cheap one, and in the early 1900s referred specifically to the Model-T Ford. It was also a show business term from the same period, meaning "a flop" (Chapman 140).

3. The interplay between music and language in "Fascinating Rhythm"

The lyrics of "Fascinating Rhythm" are reproduced below as in Robert Kimball's *The Complete Lyrics of Ira Gershwin*. The line division and punctuation are also identical to the version published by Ira Gershwin in *Lyrics on Several Occasions*. The capital letters to the left of the text show the major musical sections of the refrain. The rhyme scheme is indicated on the right, with capital letters showing repetition of an entire line.

	VERSE (16 bars)	
	Got a little rhythm, a rhythm, a rhythm	a
	That pit-a-pats through my brain;	b
	So darn persistent,	c
	The day isn't distant	c
	When it'll drive me insane.	b
	Comes in the morning	a
	Without any warning,	a
	And hangs around me all day.	b
	I'll have to sneak up to it	c
	Someday, and speak up to it.	c
	I hope it listens when I say:	b
	REFRAIN (32 bars, AB_1AB_2)	
A	Fascinating rhythm,	A
	You've got me on the go!	b
	Fascinating rhythm,	A
	I'm all a-quiver.	c
	What a mess you're making!	d
	The neighbors want to know	b
	Why I'm always shaking	d
	Just like a flivver.	c
B_1	Each morning I get up with the sun—	a
	Start a-hopping,	b
	Never stopping—	b
	To find at night no work has been done.	a
	I know that	

A	Once it didn't matter—	a
	But now you're doing wrong;	b
	When you start to patter	a
	I'm so unhappy.	c
	Won't you take a day off?	d
	Decide to run along	b
	Somewhere far away off—	d
	And make it snappy!	c
B_2	Oh, how I long to be the man I used to be!	a
	Fascinating Rhythm,	b
	Oh, won't you stop picking on me?	a

As can be seen, the verse is narrated in the first person, while the entire refrain consists of direct speech addressed to a personified "Fascinating Rhythm" who "won't stop picking on" the narrator (in the sheet music the refrain is enclosed within quotation marks). Musically, the verse is in the key of Eb minor and has a fairly straightforward sixteen-bar structure (split into four four-bar phrases), whereas the refrain shifts into Eb major and has a more complex AB_1AB_2 musical structure. The rhyme and metrical schemes, which reflect the musical organization, are also more complex in the refrain than in the verse.

3.1. The verse

The eleven lines of the published version do not capture the regular underlying structure. The symmetrical pattern may be highlighted by considering "a rhythm, a rhythm" as a separate line, as shown below:

Bars:		
1	Got a little rhythm,	a
2	A rhythm, a rhythm	a
3-4	That pit-a-pats through my brain;	b
5	So darn persistent,	c
6	The day isn't distant	c
7-8	When it'll drive me insane.	b
9	Comes in the morning	a
10	Without any warning,	a
11-12	And hangs around me all day.	b
13	I'll have to sneak up to it	c
14	Someday, and speak up to it.	c
15-16	I hope it listens when I say:	b

This disposition allows us to clearly perceive two sestets, each made up of a *aa* couplet followed by a *bccb* quatrain. In each stanza the short *a* and *c* lines correspond to one bar, comprising five or six notes whereas the longer *b* lines correspond to two bars made up of seven or eight notes. The poetic and musical structures reinforce each other. For example, the last syllables of the *b* lines all contain the rising diphthong /eɪ/ and are sung on long rhythmic values, either whole notes, or a dotted half note in measure 16. Musical parallelism is evident not only in the repeated three-note rhythmic cells, but also in the organization of the melody. For instance, descending perfect fifths are used to link the long notes: the Bb in measure 4 (on *brain*) resolves to an Eb in measure 8 (*insane*); likewise, the high F in measure 12 (*day*), the melodic peak of the verse (and the song), falls back to the Bb (*say*), the fifth degree of the scale, backed up by a suspensive dominant Bb chord leading into the refrain. This melodic parallelism is echoed phonologically by the end-of-line rhymes and semantically with *brain*/*insane*. The obsessive rhythm that is driving the narrator insane is also underlined by alliteration involving initial stops, as in *pit-a-pat*. This expression, which recalls the nursery, also anticipates the verb *patter* in the second A section of the refrain and reminds us of the patter songs that the Gershwins wrote, extending the tradition of Gilbert and Sullivan. Furthermore, as Rosenberg has noted, the "driving 'd's'" of *darn*, *day*, *distant*, and *drive* contribute to the overall effect: the throbbing persistent beat offers the victim no release (94).

The verse also points to simpler underlying folk forms. First of all, the sixteen-bar structure can be divided into four sixteen-beat units, considered by Burling as a possible universal metrical pattern in children's rhymes. In fact, the first two lines (as reanalyzed here) directly recall a frequent structure in folk quatrains, especially in children's rhymes, where a segment at the end of the first line is repeated twice to form the second line: "London Bridge is falling down,/Falling down, falling down…" (Arleo, *Rabé-raa* 530). The Gershwins typically stretch this folk material by inserting it into a more complex form and by introducing a syncopated rhythmic figure frequently found in ragtime. Ira Gershwin's lyrics were influenced both by the light verse tradition and the idioms of everyday language; on more than one occasion he alluded to or quoted from nursery rhymes.[4]

3.2. The refrain

I now turn to the refrain, focusing first on how Ira Gershwin resolved the metrical problems set up by George's "tricky rhythm." To analyze the rhythm I will use a metrical grid in which each row of regularly spaced *x*'s represents a series of beats.[5] Grid rows are performed "isochronously, or more precisely, isochronously in theory; that is, abstracting away from various structural and expressive timing adjustments" (Hayes & MacEachern 476).

In the grid shown below, the lowest level corresponds to the eighth-note beat; moving upwards, the higher levels represent respectively the quarter-note, half-note and whole-note beats. The most basic and perceptually salient "foot-tapping" level, the quarter-note level in this song, is sometimes called the *tactus* (Lerdahl & Jackendoff 70-74). Unlike standard musical notation, metrical grids do not represent the duration of notes or syllables; the *x*'s are considered as abstract points in time. Temporal intervals between beats are called "time spans." Beats may be viewed as mental events which allow performers to synchronize bodily movements, such as syllable onsets, handclaps, choreographic gestures and so on (Arleo, *Tribute* 75). The perception of beats depends on a "stopwatch" in the brain, an interval timer, which "enlists the higher cognitive powers of the cerebral cortex" (Wright 41).[6] Rhythm from this perspective is considered as pattern of observable events (sound or visual patterns) materialized against a shared mental background represented by the metrical grid.

Figure 1 shows a metrical grid for the first four bars of the refrain of "Fascinating Rhythm." This same rhythmic pattern is repeated in bars 5 to 8, with the melody simply transposed up by a major fourth. The entire A section (bars 1 to 8) is repeated in bars 17 to 24. We see that George Gershwin got a lot of mileage out of this one four-bar rhythmic motif, which occurs fours times, accounting for half of the refrain. The numerals in the line beneath the lyrics represent the scale degrees of the melody; in the original key, Eb, the first six notes are F-Ab-G-F-Bb-Bb. The underlined *5* represents the fifth degree directly below the tonic.

1	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	Fas-	ci-	na-	ting	Rhy-	thm,		You've
	2	4	3	2	5	5		2
2	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	got	me	on	the	go!		Fas-	ci-
	4	3	2	5	5		2	4
3	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	na-	ting	Rhy-	thm,		I'm	all	a-
	3	2	5	5		2	4	3

4	x														
	x							x							
	x				x			x				x			
	x		x		x		x		x		x		x		
	qui-				ver.										
	2				5										

Fig. 1. Metrical grid for the refrain of "Fascinating Rhythm," section A, bars 1 to 4.

The metrical grid shown in Fig. 1 displays very clearly the asymmetric figure that George has superimposed over a regular four-bar sixteen-beat structure. The second occurrence of "Fascinating Rhythm" has been shifted to the fourth beat of the second measure, creating what could be notated as two seven-beat phrases (each subdivided into four beats plus three beats) followed by a two-beat rest:

(4 + 3) + (4 + 3) + 2

While accurate in terms of musical accentuation, a notation in 7/4 meter would not, however, capture the polyrhythmic nature of the song, the intriguing interplay between the 4/4 meter and the suggested odd meter that self-referentially illustrates the narrator's mental agitation.[7]

Let us look at the distribution of syllables in the first four bars. For convenience, grid position will be pinpointed as follows. The numeral before the point refers to the measure and the numeral after the point refers to the eighth-note position within that measure. For example, 2.4 refers to the fourth eighth-note beat of measure two, corresponding to the onset of the syllable *the*. In the first four bars there are therefore thirty-two positions, corresponding to thirty-two eighth note beats. In the first four bars there are no syllable onsets in positions 1.7, 2.6, 3.5, 4.2, and from 4.4 to 4.8. The absence of a syllable onset does not necessarily mean an absence of sound. For example, in the written music the note corresponding to *–ver*, which begins at position 4.3 is a dotted half note, theoretically held to the end of the measure. We note an interesting pattern here, which is highlighted visually in the grid. The first six-syllable phrase ends on 1.6, the second ends on 2.5, the third on 3.4, and the fourth five-syllable phrase ends on 4.3; in other words, in terms of the eighth note positions, we have a regressive x, x-1, x-2, x-3 pattern. On the right side of the grid, we have a one-syllable anacrusis (or upbeat) at the end of measure 1 (position 1.8), a two syllable upbeat at the end of measure 2 (2.7, 2.8), and a three-syllable upbeat at the end of measure 3 (3.6, 3.7, 3.8). This left-shifted and rhythmically varied structure contrasts sharply with simple folk quatrains, especially children's rhymes. For example, the counting-out rhyme "Eeny meeny miny mo," has four lines with exactly the same rhythmic pattern, six eighth-notes followed by a quarter-note in traditional musical terms.

The relationship between linguistic and musical stress is not a straightforward one in songs. One can not state simple rules, such as "an unstressed syllable in spoken English may not be aligned with a higher-level beat." For example, in the Gershwin song "The Man I Love" the last three words of the second A section are "say a word." The indefinite article *a*, normally reduced to a schwa in spoken English, is aligned with the third quarter-note beat and held two beats, creating an effect a "sort of 'slow-motion speech,' giving the listener time for the words to sink in." (Arleo, *Tribute* 79).

Returning to the first four bars of "Fascinating Rhythm" we see that there is a tendency to synchronize the onsets of normally stressed syllables with the basic quarter-note beat (the *tactus*). The stressed syllables of the three polysyllabic words, *Fascinating*, *Rhythm* and *a-quiver* are all aligned with the quarter-note beat, as is the third syllable of *Fascinating,* which carries secondary stress. We notice that the second syllable of *quiver* and in bar 8 the second syllable of *flivver* are both aligned with the quarter-note beat, despite the fact that these syllables would be unstressed in spoken English. However, in both cases the stressed syllables of these words are aligned with a higher-level beat, the whole-note beat, so that the usual stress hierarchy is respected. There is a slight deviation from the ordinary stress of English at position 3.1, *-na* is aligned with the downbeat, but this is of course part of the Gershwins' self-referential rhythmic trick. Another somewhat subtle effect occurs at the very beginning of the refrain. In spoken English, if we say "That's a fascinating rhythm" in a rather neutral way, without emphasizing the adjective, there is usually more stress on the noun. In writing a lyric, we might be tempted therefore to align the first syllable of *rhythm* with the downbeat. But in this song, the personified "Fascinating Rhythm" might be compared to someone being addressed in a direct pleading manner, with the emphasis on the first name, like saying "*Pe*ter Andrews, listen to me"! Of the four monosyllables aligned with the quarter-note beat in the first four bars, *got* and *go* would normally carry stress, whereas it would be optional for *on* and *all*. On the other hand, all twelve syllables not aligned with the quarter-note would normally be unstressed. These include the unstressed syllables of the polysyllabic words, the pronoun *me*, contractions (*you've*, *I'm*), the definite article and the metrical filler *a*. This tendency is confirmed when one examines all 147 syllables of the refrain (see appendix). The sixty-two syllables that are not aligned with the quarter-note beat include many closed-class grammatical items, usually with low lexical content, such as articles, prepositions and affixes (there are several notable exceptions that will be discussed in the analysis of the B sections). It would be impossible with these functional fragments to piece together any kind of a story. On the other hand, the eighty-five syllables aligned with the *tactus* level have higher

lexical content, somewhat reminiscent of telegraphic speech, which allow the listener to perceive a few narrative threads. By synchronizing meaningful and ordinarily stressed syllables with the basic beat, the lyricist focuses the listener's attention on the message.

We will now examine the metrical grid for the B sections of the song, which present more rhythmic and melodic variation than the A sections (see Fig. 2).

9	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
			Each		morn-		ing	
			1		4		5	
10	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	I		get	up		with	the	
	6		5	7		5	6	
11	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	sun							
	3							
12	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	(Start	a-	hop-	ping	ne-	ver	stop-	ping)
	5	3	3	3	5	3	3	3
13	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
			To		find		at	
			1		3		5	
14	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	night		no	work		has	been	
	1'		7	2'		6	7	

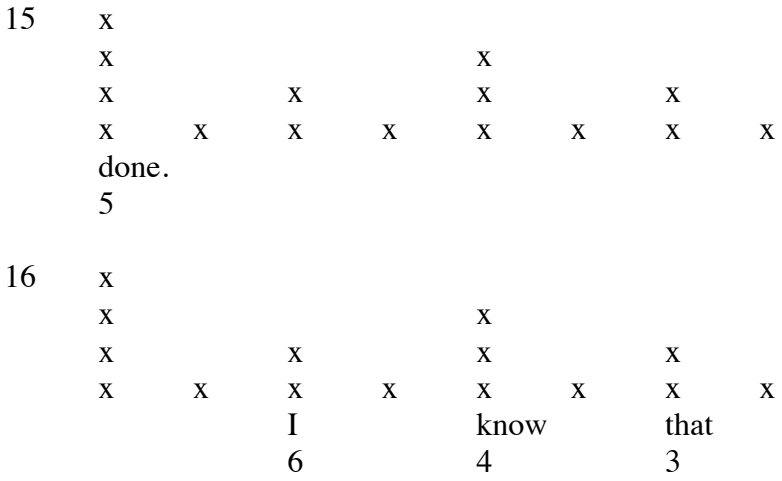

Fig. 2. Metrical grid for the B_1 section, bars 9 to 12.

Unlike in the A section, the downbeat of the first measure of the B section is unfilled: the first syllable *each*, occurs on the second quarter-note beat. Instead of using the three first notes ("Each morning") as an upbeat in the last measure of the A section, the composer has shifted them to the right, a characteristic Gershwin rhythmic strategy, also found in the A sections of "Embraceable You," whose lyric begins on the second quarter-note of the first bar: "Embrace me, my sweet embraceable you." This delay effect would later become a signature technique of vocalists such as Billie Holiday and Frank Sinatra. A second feature of the B sections of "Fascinating Rhythm" is the syncopation on the fourth eighth-note beat of measures 10, 14, 26 and 30, giving emphasis to syllables with relatively high lexical content: *up*, *work*, *be*, *pick-*. A third feature of the first B_1 section is the parenthetical insertion of what sounds like a childhood ditty, a pair of two-beat four-syllable rhyming lines sung—actually almost chanted—on a sing-song pattern (Bb G G G) that recalls the descending minor third interval found in children's rhymes ("Rain, rain, go away") and taunts. The iconic monosyllabic verb *hop*, with its short lax vowel and final voiceless plosive, refers to a brief rapid movement associated with children's play (cf. *hopscotch*). As a noun, the polysemous *hop* has designated a dance or a dance party since the middle 1700s and became a slang term for narcotics in the late nineteenth century (Chapman 215-216). Both meanings fit the mood of the rhythmically intoxicated narrator. Two bars later, the conjoined musical and poetic reference to a mythical childhood world of play is made clear when we discover that "at night, no work has been done." The first B_1 section contrasts with the A section structurally, by displaying greater rhythmic regularity, but also semantically, since the narrator does not address "Fascinating Rhythm," but refers in the simple present to a daily unproductive

routine. The last three notes of the first B_1 section form an anacrusis leading back to the A section.

Measures 25 and 26 of the last B_2 section begin with the same rhythmic pattern as measures 9 and 10:

25	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
			Oh,		how		I	
			1		4		5	
26	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	long		to	be		the	man	
	6		6	7		6	7	
27	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
			I		used	to		
			1’		2’	1’		
28	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	be							
	6							

Fig. 3. Metrical grid for the B_2 section, bars 25 to 28. Numerals followed by an apostrophe (e.g., 1’) are one octave higher.

In the last four measures of the refrain the narrator enters a final plea, repeating the first line of the refrain (also the title of the song) and ending with an emphatic *me* on the tonic, held for a whole note and followed by an empty measure (except for the instrumental commentary). From a harmonic viewpoint, the final perfect cadence suggests the narrator has at last made a firm resolution to master “Fascinating Rhythm.”

29	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	Fas-	ci-	na-	ting	Rhy-	thm,		Oh,
	2	4	3	2	5	5		2
30	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	won't	you	stop	pick-		ing	on	
	4	3	2	6		1'	3	
31	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x
	me!							
	1							
32	x							
	x				x			
	x		x		x		x	
	x	x	x	x	x	x	x	x

Fig. 4. Metrical grid for the B_2 section, bars 29 to 32.

3.3. The melody of "Fascinating Rhythm" and the prosody of spoken English

The relationship between the melody of "Fascinating Rhythm" and the prosody of the spoken language can only be discussed briefly here. It is clear that a song written in this tradition cannot faithfully imitate the natural intonation of an English sentence. First of all, when performed as written, the syllables are sung on a set of discrete pitches, whereas intonation is usually an analog phenomenon. Blues singers and jazz singers like Billie Holiday and Abbey Lincoln, both consummate storytellers, allude to the intonation of the spoken language by sliding in and out of notes, sometimes using a fluctuating sense of pitch to convey. Secondly, in "Fascinating Rhythm," there are obvious deviations from the usual intonation patterns of English. For example, it is unlikely that the second unstressed reduced syllable of *Fascinating* would be spoken on a higher pitch than the surrounding syllables, which have respectively primary and secondary stress, since higher pitch is usually correlated with stress. A more flagrant deviation occurs in measure 5 ("What a mess…"), where the indefinite article is sung on a higher pitch than the surrounding words, *What* and *mess*, either of which might form the melodic peak of an exclamatory sentence of this type, depending on

the emphasis. On the other hand, in these two examples Ira Gershwin has put these normally unstressed syllables (*-ci-*, *a*) in rhythmically weak positions, so the deviation is not jarring. Furthermore, these are local deviations; the relationship between the melody and spoken intonation often appears closer when one examines a longer segment. For example, we can imagine contexts where an exclamatory "You've got me on the go!" might peak on the last syllable, translating the speaker's agitated mental state. The descending major fifths on *quiver*, *flivver* and *(un)happy* also correspond roughly to the ordinary falling contours of declarative English sentences. The phrase "I used to be" in measure 27, with its rising and falling pattern, seems very close to normal English intonation as well. In wedding syllables to notes, Ira Gershwin had to strike a compromise between George's melodies and the prosody of English. His success in writing lyrics that sound natural is the result of hours of labor spent trying to capture the patterns of colloquial English that surrounded him.

4. Conclusion

Beyond the undoubtedly worthy goal of continuing to promote the Gershwin songbook in the twenty-first century, what is the point of this case study? How does it relate to broader issues, such as the putative universality of certain forms of isochronic metrical poetry? As we have seen, these forms depend on a universal human capacity rooted in the brain, the ability to synchronize actions with a regular beat thanks to a mental stopwatch. The Burling and Brailoiu hypotheses regarding the universal metrical structures of children's rhymes suggest that there may be a statistical tendency to favor binary metrical structures with a number of beats equal to a power of two. Although linked to a particular culture at a particular time, the symmetrical thirty-two-bar refrain lives on today; used daily by singers and musicians around the world, it is now part of the international repertoire of poetic-musical forms.[8] When working with such binary forms, adult creators may choose to weave irregular mind-arousing patterns over a regular ground to suit their aesthetic purposes. This attitude contrasts sharply with most children's rhymes, which are functional in nature.

The achievement of the Gershwins lies in the stretching of conventional forms, later leading to more ambitious works like *Porgy and Bess*, in their masterful melding of so-called high- and low-brow traditions, and above all in their celebration of the musical, poetic and linguistic diversity of the pulsating "Syncopated City." On a more personal level, one might read in Ira Gershwin's lyrics the story of two brothers, one providing wild Dionysian rhythms, the other, the Apollonian wordsmith, the careful craftsman trying to get his daily work done.

Notes

1. Lyrics by Ralph Freed, music by Burton Lane. In the interest of full disclosure the author confesses to liking a Gershwin tune. I wish to thank Charles Arnault and Gérard "Olaf" Lafon for providing discographical information. Although it was not possible to publish the full musical score of "Fascinating Rhythm" in this paper, I hope the reader will be able to listen to some of the recordings listed in the brief non-exhaustive discography. Ella Fitzgerald's rendition on her well-known tribute to the Gershwin songbook includes both the verse and the refrain, and also sticks quite close to the written music. It should be noted that vocalists often interpret written eighth notes with a ternary swing feeling. Roughly, this means that the first of two successive eighth notes is about twice as long as the second.

2. As Foley (38-39) points out, oral poetry is extremely diverse and may evolve through different media. Although not an example of oral composition, "Fascinating Rhythm" does involve performance and aural reception.

3. The American terminology is used to refer to rhythmic values.

4. See the verse of "'S Wonderful" ("Life has just begun:/Jack has found his jill."), verses 1 and 2 of "Feeling I'm Falling" ("Eeny meeny miny mo!" and "Doctor, lawyer, Injun, thief"), and the refrain of "Barbary Coast" ("Where baa, baa, black sheep baa, baa, baa the most"). Another link to childhood (and to Lewis Carroll) is Ira Gershwin's affection for nonsense syllables, which was inspired by the refrain phrases of the sixteenth century (e.g., "With a hey and a nonny"). Noting that hundreds of examples of nonsense phrases can also be found in nineteenth- and twentieth-century American song, he quotes a "phrase-for-sound-alone's-sake" from "It Ain't Necessarily So": "Wadoo! Zim bam boddle-oo! Hoodle ah da wah da! Scatty wah!" (Gershwin 197-199).

5. For further information on the metrical grid see Lerdahl & Jackendoff and Hayes & MacEachern.

6. Studies with functional magnetic resonance imaging (fMRI) have led researchers to suspect that this mental stopwatch involves the striatum and the substantia nigra (Wright 41-43).

7. Wilder (131) suggests that "the first three measures of the chorus could be changed to 4/4, 3/4, and 5/4—or even 4/4, 3/4, and 2/4. But it would not be so "fascinating," as the underlying chord progression repeats itself in a pattern of four beats, producing the juxtaposition of opposed rhythms."

8. According to Wilder (56), the thirty-two-bar AABA refrain became the predominant form in American popular music around 1926-27. By contrast, this form was far less frequent in the popular music of the 1960s, which saw a return to folk forms such as the four-line quatrain (often based on eight-bar or sixteen-bar structures) and the twelve-bar blues. One need only compare the lyrics of Ira Gershwin and Bob Dylan to prove the point.

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Fred and Adele Astaire with George Gershwin on piano:

http://www.youtube.com/watch?v=6BTM07B0U64

Jamie Cullum: http://www.youtube.com/watch?v=KqF6IaGekE4&feature=related

Ella Fitzgerald: http://www.youtube.com/watch?v=1w1WuuG6XgA&feature=related

Dianne Reeves: http://www.youtube.com/watch?v=enaltqw6dYQ

Appendix 1. Relationship between syllable onsets and beats in the refrain of "Fascinating Rhythm"

NB: The syllable divisions are those of the written music.

List A (syllables whose onsets are aligned with the quarter-note beat):

A: Fas-, nat-, Rhy-, got, on, go, Fas- nat- Rhy-, all, qui-, ver, What, mess, mak-, neigh-, want, know, why, al-, shak-, like, fliv-, ver

B: Each, morn-, -ing, I, get, the, sun, start, hop-, nev-, stop-, to, find, at, night, no, been, done, I, know, that

A: once, did-, mat-, now, do-, wrong, when, start, pat-, so, hap-, -py, Won't, take, day, -cide, run, long, some-, far, -way, make, snap-, -py

B: Oh, how, I, long, to, man, I, used, be, Fas-, nat-, Rhy-, won't, stop, on, me

List B (syllables whose onsets are not aligned with the quarter-note beat):

A: ci-, -ing, -thm, You've, me, the, ci-, -ing, -thm, I'm, a-, a, you're, -ing, the, -bors, to, I'm, -ways, -ing, Just, a

B: up, with, a-, -ing, -er, -ping, work, has

A: it, -n't, -ter, But, you're, -ing, you, to, -ter, I'm, un-, you, a, off, De-, to, a-, -where, a-, off, and, it

B: be, the, to, ci-, -ing, -thm, Oh, you, pick-, -ing